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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,157

12/06/2003

Christopher M. Goggin

2334

7590

05/30/2007

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EXAMINER

LIEU, JULIE BICHNGOC

ART UNIT

PAPER NUMBER

2612

MAIL DATE

DELIVERY MODE

05/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/730,157

Applicant(s)

GOGGIN, CHRISTOPHER M.

Examiner

Julie Lieu

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-28 and 33-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-28 and 33-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office action is in response to Applicant's amendment filed August 29, 2006.

Claims 1, 2, and 29-32 have been canceled. Claims 3, 8, 9, 24, 25, 33, 36, 40, 41, and 59 have been amended. New claims 60 and 61 have been added.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-28 and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 16, 44, 57, 59, and 60, "may" and "may be" is indefinite.

It is suggested that the Applicant go through all the pending claims and make changes to claims in which these indefinite terms appear.

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5. The indicated allowability of claims 2-28 and 36-59 is withdrawn in view of the newly discovered reference(s) to Iihoshi et al. (US Patent No. 5,579,010). Rejections based on the newly cited reference(s) follow.

Claim Objections

6. Claims 33-59 and 61 are objected to because of the following informalities: claim 61 must end with a period. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. Claims 2-4, 13-15, 21-23, 60, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Iihoshi et al. (US Patent No. 5,579,010).

Claim 60:

Iihoshi et al. (Iihoshi) discloses a ranging and warning device comprising:

- a. means 3 for emitting a beam of directed energy waves;
- b. means 6 for receiving said directed energy waves reflected by an object;
- c. means 11 for calculating the distance between an object and said means for detecting; and
- d. means 10 for recording data generated by said reflected directed energy waves
- e. means 11 for detecting the object (see front-page figure and col. 5, 1st and 2nd paragraph);

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f. means for varying direction of means for emitting whereby direction of the directed energy waves emitted by means for emitting may be varied by means for varying causing the directed energy waves to form a pattern. See col. 3, 1st and 2nd paragraph.

Claim 3:

In Iihoshi, means for emitting a beam of directed energy waves is pulsed on and off whereby the means for varying uses said means for emitting to form a pattern of points of reflected pulsed directed energy. Col. 9, lines 35-43.

Claim 4:

The system of Iihoshi further comprises a means for computing 11 whereby means for computing 11 stores templates of data generated by a particular object that reflects pulsed directed energy, the means of computing compares said stored templates of data to data recorded by means for recording 10. Col. 7, lines 40-61.

Claim 13:

In Iihoshi, the means for emitting a beam of directed energy waves is radio waves of a predetermined frequency.

Claim 14:

The means for varying disclosed in Iihoshi further includes a means for varying direction of the pulsed radio waves in a vertical direction and means for varying direction of said pulsed radio waves in a horizontal direction. Col. 3, first paragraph.

Claim 15:

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It is not clear in Iihoshi whether the pattern of reflected points, if connected, form a sine wave. However, one skilled in the art would have readily recognized that sine wave is a popular waveform used and obtained in object detection system using waveform signals.

Claims 21-23:

The rejection of claims 21-23 recite the rejection of claims 13-15, respectively.

Claim 61:

The rejection of claim 61 recites the combined rejection of claims 60, 3, and 4, except it is a method claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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9. Claims 5-7 and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iihoshi et al. (US Patent No. 5,579,010).

Claim 5:

Though means for emitting a beam of directed energy waves Iihoshi is not laser light, a skilled artisan would have readily recognized using laser light in the Iihoshi system because the it is functionally equivalent to the radio or ultrasonic signal in Iihoshi.

Claim 6:

The means for varying disclosed in Iihoshi further includes a means for varying direction of the pulsed signal in a vertical direction and means for varying direction of said pulsed radio waves in a horizontal direction. Col. 3, first paragraph.

Claim 7:

It is not clear in Iihoshi whether the pattern of reflected points, if connected, form a sine wave. However, one skilled in the art would have readily recognized that sine wave is a popular waveform used and obtained in object detection system using waveform signals.

Claim 57:

Iihoshi discloses warning device comprising

- a. a waveform emitter 3 adjustably aimed whereby a signal emitted by the emitter is sequentially directed in a plurality of directions;
- b. a receiver 6 for receiving reflected signal from an object, the reflected laser light originally emitted by signal emitter;
- c. a computer 11 including a memory 9,10, a calculator, a timer, and a controller; the computer operatively connected to the emitter and the receiver;

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d. at least one pattern of stored data points in the computer memory 9 whereby computer can compare data points generated by said receiver from the reflected signal and thereby recognize correlations between the pattern of stored data points and the generated data points;

e. an output (inherent) operatively connected to the computer.

The Iihoshi system uses RF or ultrasonic signal. However, a skilled artisan would have readily recognized using laser light in the Iihoshi system because it is functionally equivalent to the radio or ultrasonic signal in Iihoshi.

Claim 58:

The means for varying disclosed in Iihoshi further includes a means for varying direction of the pulsed radio waves in a vertical direction and means for varying direction of said pulsed radio waves in a horizontal direction. Col. 3, first paragraph.

It is not clear in Iihoshi whether the pattern of reflected points, if connected, form a sine wave. However, one skilled in the art would have readily recognized that sine wave is a popular waveform used and obtained in object detection system using waveform signals.

Claim 59:

In Iihoshi system, the computer may change the aimed pulses of the signal so that the signal can be adjusted both for amplitude and frequency patterns whenever the stored template of data matches the reflected data points whereby the beam of directed energy wave is aimed at the particular object.

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Allowable Subject Matter

10. Claims 8-12, 16-20, 24-28, 36-40, and 44-56 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 571-272-2978. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Julie Lieu
Primary Examiner
Art Unit 2612

May 21, 07